

# Temporary Traffic Control Manual

City of Mesa Transportation Department



## Temporary Traffic Control Manual

First Edition



City of Mesa Supplement  
to the  
City of Phoenix 2007  
Traffic Barricade Manual

City of Mesa  
Temporary Traffic Control  
Rules and Procedures



TRANSPORTATION DEPARTMENT  
AUGUST 2011



2007 Traffic Barricade Manual



TRANSPORTATION DEPARTMENT

# New Manual

- Name Change
- Replaced 2007 City of Phoenix TBM and 2011 City of Mesa Supplement
- Stand Alone City Manual
- Direct Augmentation to the MUTCD

# Temporary Traffic Control Program

- Updated Traffic Control Fees (effective July 1, 2016)
- Traffic Control Plan Requirements
  - Clarification on design criteria
  - TCP – Traffic Only Plan
  - TPAP – Temporary Pedestrian Access Plan
- Temporary Traffic Control Permit Approval
  - Contractor/Barricade company to have copies with them at all times.
- TTC Device Impounding

Temporary Traffic Control Fees

Description of Service	Fee
Minimum-No Restrictions Planned	\$50
Roadway/Alley Restriction	\$75 Per Day
Left Turn Prohibition –Signalized Intersection	\$50 Day/Direction
Sidewalk Closure	\$20 Per Day
Arterial Road Closure	\$2,500 Per Day
Plan Review Fee (3 <sup>rd</sup> and Subsequent Reviews)	\$50 Per Sheet/Review

# General Traffic Regulations

- Designated Responsible Person
  - At least one (1) person in an organization must be ATSSA TCS Certified or equivalent
- New Certification Requirements
  - ATSSA Traffic Control Design Specialist Certification
    - Required to submit any TCP or TPAP to the City for review
    - Certification number must be on the plan when submitted
  - ATSSA Flagger Certification
    - ATSSA certification or equivalent
    - Must have possession of certification at all times when flagging

# General Traffic Regulations

- Advance Public Notification
  - Full Closure – (10) Full Calendar Days
  - Peak Hour Reduction in Through Lanes – (5) Full Calendar Days
  - Left Turn Prohibition at an arterial/collector signalized intersection – (5) Full Calendar Days
- Detour/Bypass Surface Requirements
  - Detoured Less Than (7) Days
    - Asphalt millings, quarter minus gravel, compacted aggregate
    - Provide smooth rideable surface with dust control measures
  - Detoured (7) Days or More
    - Paved surface. Engineered design plan required and approved by City Traffic Engineer



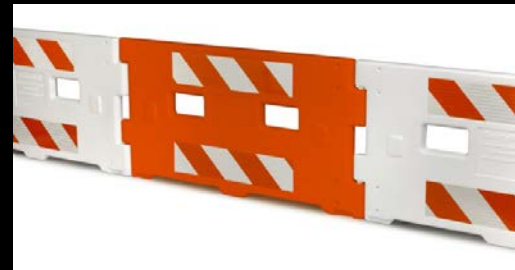
# General Traffic Regulations

- Vertical Pavement Drop
  - Exceeding one inch in depth must be evaluate by Transportation staff
    - Asphalt ramping
    - Applicable warning signs (i.e. Bump, Dip, Grooved Pavement, etc.)
- Holiday Construction Moratorium
  - Improved Definition
  - Provided Key City locations Where Applicable



# Signs, Devices, and Application

- Temporary Concrete Barriers
  - Require a sealed engineered plan to be reviewed and approved by City Traffic Engineer.
- Longitudinal Channelizing Device
  - Pedestrian access considerations
  - ADA safety wall accepted



# Signs, Devices, and Application

- **Channelization Device Application**
  - Maximum spacing for channelizing devices
  - Five (5) foot Maximum spacing for Type I, II, and III barricades when closing roadways, alleys, or sidewalks.
- **Traffic Control Device Storage**
  - Cluster method with a minimum of (3) units to a cluster.

*Maximum Spacing of Channelization Devices*

<b>Speed (mph)</b>	<b>Maximum Channelizing Device Spacing</b>		
	<b>Taper* (feet)</b>	<b>Tangent (feet)</b>	<b>Conflict** (feet)</b>
<b>20</b>	20	40	10
<b>25</b>	25	50	12
<b>30</b>	30	60	15
<b>35</b>	35	70	17
<b>40 and higher</b>	40	80	20

\* Maximum channelizing device spacing for all speeds on shifting tapers is 20 feet. Spacing for traffic cones used in a merging tapers shall not exceed 25 feet regardless of speed.

\*\* Use on intermediate and short-term projects for shifting tapers where there are no pavement markings or where there is a conflict between existing pavement markings and channelizing devices.



# Signs, Devices, and Application

- MUTCD sign spacing for advance warning signs
- Sign Changes/Additions
  - Replaced the W20-6 Work Zone sign with the G20-5p
  - Steel Plate Ahead (W8-24) sign required for milled road plates
  - Sidewalk Bump sign (W8-1aMe)
  - Advance Intersection Lane Control Sign (R3-8LS/SR)



# Service Vehicle Operations

## 15-Minute Short Term



Service vehicle should be equipped with the following:

- High intensity rotating, flashing, oscillating, or strobe lights
- Four-way hazard flashers
- A short taper of cones (50-foot taper consisting of six (6) traffic cones)

## 60-Minute Short Term/Slow Moving

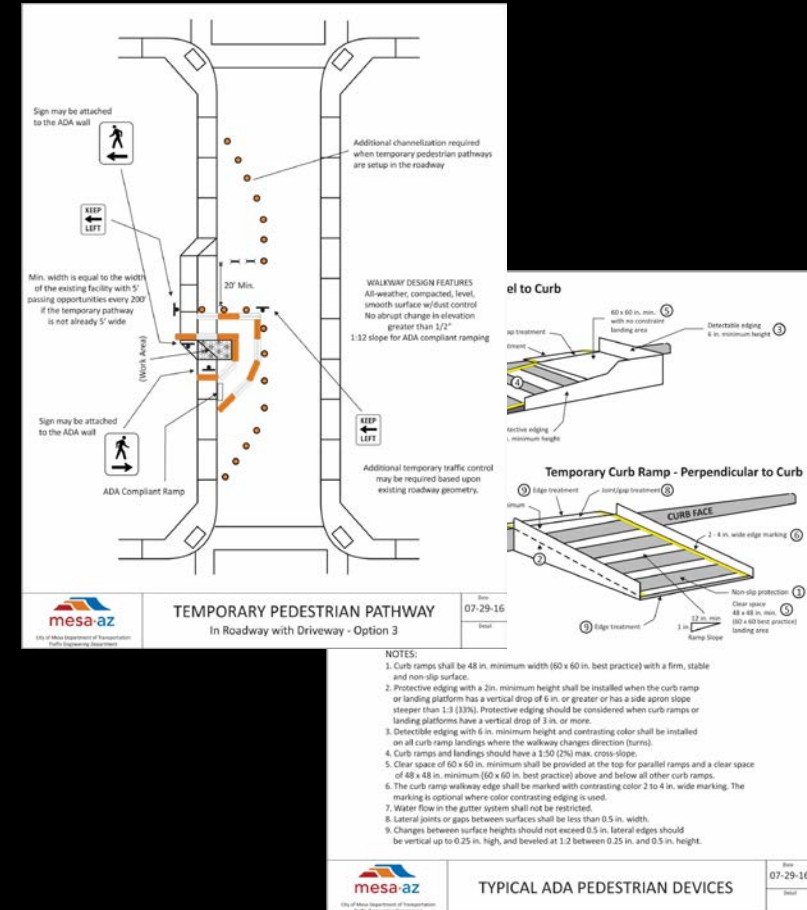


Service vehicle should be equipped with the following:

- High intensity rotating, flashing, oscillating, or strobe lights
- Four-way hazard flashers
- A short taper of cones (50-foot taper consisting of six (6) traffic cones)
- One (1) arrow board

# Pedestrian Access Accommodations

- ADA required TTC devices
  - Ramps
  - Longitudinal channelizing devices
  - Pedestrian guide signs (R11-11a)
- Steel plates on sidewalks
- Temporary pathway design features
- Added additional pedestrian access sample design applications.



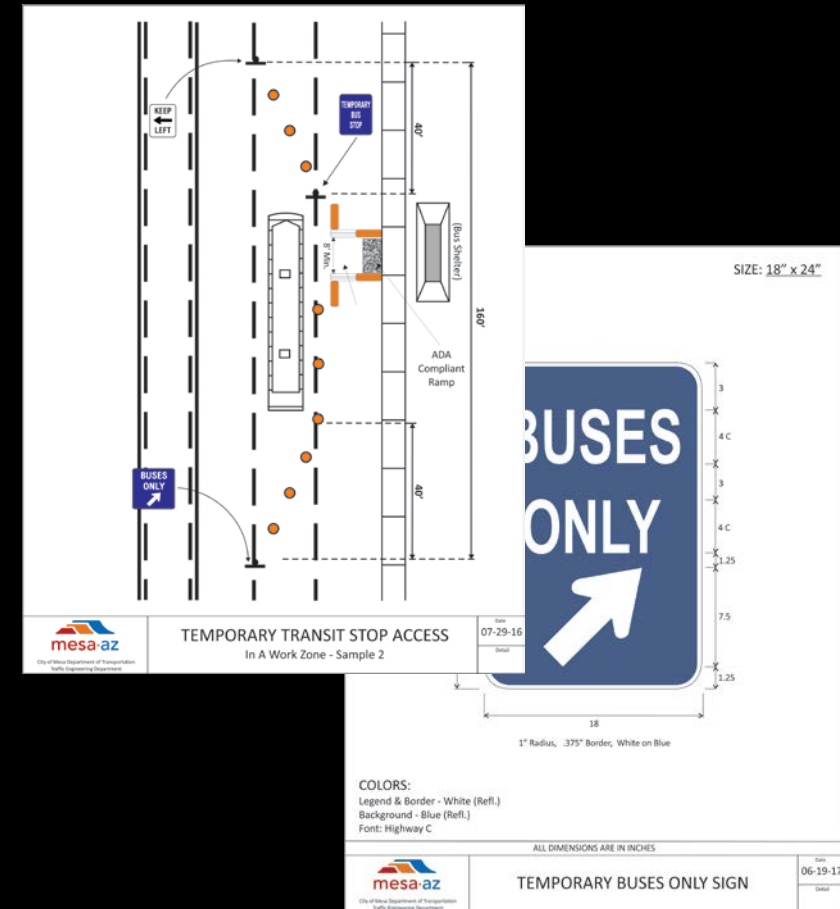
# Bicycle Access Considerations

- Reduced advance warning signs for bike lane closures
- W11-1/W16-1 Bike Lane Symbol/Share the Road signs used for bike lane/route closures.
- M4-9 required when providing a bike lane/route detour.



# Transit Stop Accommodations

- Guidelines on how to coordinate a relocation or closure of a transit stop
- ADA compliance requirements for temporary stops.
- Way finding sign applications
- Traffic control plan samples for typical applications.



# Special Events


- Guideline for submitting for Special Events
- Pre-event planning
- Special Event License Application and TTC Permit
- Special requirements for advance public notification.
  - Required City design static signing

SIZE: 48" x 48"

48.000" across sides 3.000" Radius, 1.250" Border, 0.750" Indent, Black on Orange

COLORS:  
Legend & Border - Black (Non-Refl.)  
Background - Orange (Refl.)

ALL DIMENSIONS ARE IN INCHES

 City of Mesa Department of Transportation Traffic Engineering Department	SPECIAL EVENT SIGN	Date 11-18-16
		Detail



# Appendix

- Typical Temporary Traffic Control Applications
- Mesa Sign Detail
- Definitions and Abbreviations
- City Contact Numbers

ROAD CLOSURE  
Collector/Arterial

07-19-16

mesa-az

SIZE: 18" x 24"

1" Radius, .375" Border, White on Blue

width tapered to 15"

18"

12" Radius, .375" Border, White on Blue

mesa-az

TEMPORARY BUS STOP CLOSED SIGN

06-15-17

**Advance Warning Sign Minimum Spacing**

Distance Between Signs		
A	B	C
100 feet	100 feet	100 feet
300 feet	300 feet	300 feet
500 feet	500 feet	500 feet
500 feet	500 feet	500 feet
500 feet	500 feet	500 feet

Minimum Advance Warning Sign Minimum Spacing in the AHSIS

**Minimum Spacing of Channelizing Devices**

Minimum Channelizing Device Spacing		
Taper** (feet)	Tangent (feet)	Conflict** (feet)
20	40	30
25	50	12
30	60	15
35	70	17
40	80	20

\*\* Present speed, off-point 60 ft per sec to speed prior to point of tangency, 10 ft per sec per 10 ft of speed prior to point of tangency. \*\* Present speed, off-point 60 ft per sec to speed prior to point of tangency, 10 ft per sec per 10 ft of speed prior to point of tangency. \*\* Present speed, off-point 60 ft per sec to speed prior to point of tangency, 10 ft per sec per 10 ft of speed prior to point of tangency.

**Buffer Spacing**

Speed*	Distance
20 mph	115 feet
25 mph	155 feet
30 mph	200 feet
35 mph	250 feet
40 mph	305 feet
45 mph	360 feet
50 mph	425 feet

\* Present speed, off-point 60 ft per sec to speed prior to point of tangency, 10 ft per sec per 10 ft of speed prior to point of tangency. \*\* Present speed, off-point 60 ft per sec to speed prior to point of tangency, 10 ft per sec per 10 ft of speed prior to point of tangency.

**REFERENCE MATERIALS**  
Sign Spacing, Buffer Distance, & Channelizing Spacing

mesa-az

06-15-17

Questions?